

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 7:04 AM

**Daily Diary Report by Bid Item**

Contract No.: 04-0120F4

Diary #: 1082 Const Calendar Day: 655

Date: 21-Mar-2014 Friday

Inspector Name: Brignano, Bob

Title: Transportation Engineer

Inspection Type:

Shift Hours:

Break:

Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex

Approved Date:

Status: Submit

**04-0120F4  
04-SF-80-13.2/13.9  
Self-Anchored  
Suspension Bridge****Weather****Temperature** 7 AM

12 PM

4PM

**Precipitation****Condition** partly cloudy am, clear pmWorking Day ☒ If no, explain:**Diary:**

Dispute

**General Comments**

CCO 314, SAMPLING AND TESTING A354 GRADE BD MATERIAL:

ABF Engineer Kelvin Chen is working part time in the field and office on CCO 314.

On site today from VGO are Rob Rutledge and Pamela Wallace. They arrive on site at 0800, take lunch 1200 to 1230, and leave the site at 1600, but they then go to the airport with Pamela flying out of the Bay Area this evening.

Crews at the Pier 7 warehouse area are working an 8-hour shift 0700 through 1530 today, with the work of one ironworker and one operator on CCO 314 all day. Ironworker Jared Garret and Operator John Sabatino work all 8 hours today at the test rig area on CCO 314.

Today's work is to install the jacking rods in TR's 12 and 13. The work starts with the removal of 2 nuts from each of the 2 jacking rods for TR's 12 & 13 – these nuts had been test fit on an earlier date. Removal of the nuts is completed by about 0730. Then, there is a coupler on one of the jacking rods (previously test fit) that needs to be removed – removal of the coupler from the TR 13 jacking rod is complete by 0800. While the ironworker is removing the nuts, the operator moves materials in the work area that will be in the way of later operations. The operator also assists with the removal of the coupler, because the weight of the coupler needs to be supported by a forklift as it is unthreaded from the rod. The north / jacking end plates are then removed from the TR's – they had previously been unbolted but a couple of bolts remained as pins to store the end plates on the test rigs. Then, there is prep work for installation of the jacking rods, with it necessary to gather timber blocking for support of the jacking rods during the installation steps. Also this morning, both of the tent frames are moved out of the way of the work, the compressor is moved from one spot in the test rig area to another spot in the test rig area to get it out of the way, and the welding machine is moved to the warehouse or mechanics area (out of the CCO 314 area).

Prior to installation of the jacking rods in the test rigs, it is necessary to pre-position the washer (reinforcing plate) and bellows/flashing on the jacking rod. The bellows, which is a flashing product, is being used at TR's 12 & 13 instead of the grommet detail used at TR's 1-11. The flashing product used is the red silicone instead of the grey EPDM – both types were purchased for tests, and the red silicone product was chosen because it has more flexibility (not as stiff). A hole is cut in the 2 flashing products for the two 4" diameter (really pitch diameter shank for 4" fine threads) jacking rods at the mark for 3-1/4" to 4" on the flashing product. Four holes are drilled in each flashing product's flange to match the holes in the washer (reinforcing plate), and then the pieces are cleaned with compressed air. A washer (reinforcing plate) and flashing product is installed on each jacking rod. The position for now is away from the final location and



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as close as the pieces can safely be positioned near the strain gauges, because of the need to push the jacking rod through the test rig with a significant portion exposed out the south end for the installation of the coupler and painting of the coupler and portion of the jacking rod (and also portion of the test rod in the case of TR 13).

About 0930, ABF is ready to install the jacking rods in the test rigs. They start with TR 13. VGO is present during the installation to watch that the strain gauges are not damaged during the installation process – VGO alerts ABF any time the strain gauges are in danger of hitting something during the installation process. The installation of the jacking rod involves several short steps with the extendable forklift, setting on wood blocking, and re-rigging to install the rod a little more. By 1120, the rod is installed sufficiently for the installation of the coupler and test rod but not yet in the position necessary for painting. Thread sealant (RectorSeal 5) is put on the end of the jacking rod for the full length of the planned engagement and the coupler is threaded onto the rod. During a previous dry (without thread sealant) test fit, 7-1/2" of the per plan 8" engagement was achieved before the coupler would not thread any more. During today's installation with thread sealant, the full 8" of engagement is achieved for the jacking rod engagement in the coupler for TR 13. This is completed by 1200. After lunch, the test rod is installed in the coupler at TR 13. Thread sealant (RectorSeal 5) is put on the test rod and the full 6" per plan of engagement of the test rod in the coupler is achieved. This is completed about 1245. For both the jacking rod and the test rod threading into the coupler at TR 13, lots of thread sealant is put on the rod to ensure full coverage, and as a result, excess material is pushed out during threading. The excess material is cleaned – wipe away excess and then use brake cleaner with rags for the final portions. Then Permatex Ultra Black Maximum Oil Resistance RTV Silicone Gasket Maker (product approved by the DJV for use in the wet chamber) is used to caulk the rod to coupler interfaces (jacking rod and test rod). This caulking is completed by about 1300. Then, the jacking rod with the coupler and test rod is moved another approximately 6" to the south so that there is sufficient access for CCC to paint the coupler and portion of the jacking rod – the paint limit on the jacking rod is so that the entire length in the wet chamber plus the bellows area will be painted, but for access to apply paint, this portion of the rod temporarily extends out of the wet chamber. Work at TR 13 is complete about 1315.

After 1315, ABF prepares to install the TR 12 jacking rod, with this starting about 1330. By approximately 1430, the rod is installed sufficiently for the installation of the coupler but not yet in the position necessary for painting. Thread sealant (RectorSeal 5) is put on the end of the jacking rod for the full length of the planned engagement and the coupler is threaded onto the rod. During a previous dry (without thread sealant) test fit, 7" of the per plan 8" engagement was achieved before the coupler would not thread any more. During today's installation with thread sealant, 7-1/8" of engagement is achieved for the jacking rod engagement in the coupler for TR 13. Several attempts are made to get more engagement, but the jacking rod will not go any farther. I call the DJV and am told that this thread engagement is acceptable – the DJV previously checked their calculations after the dry test fit did not get full engagement. Installation of the coupler is complete about 1500. Lots of thread sealant is put on the jacking rod to ensure full coverage, and as a result, excess material is pushed out during threading. The excess material is cleaned – wipe away excess and then use brake cleaner with rags for the final portions. Then Permatex Ultra Black Maximum Oil Resistance RTV Silicone Gasket Maker (product approved by the DJV for use in the wet chamber) is used to caulk the jacking rod to coupler interface. This caulking is completed by about 1510. Then, the jacking rod with the coupler is moved another approximately 6" to the south so that there is sufficient access for CCC to paint the coupler and portion of the jacking rod – the paint limit on the jacking rod is so that the entire length in the wet chamber plus the bellows area will be painted, but for access to apply paint, this portion of the rod temporarily extends out of the wet chamber. Work at TR 12 is complete about 1515. Note that the test rod does not need to be installed at TR 12 yet, because there is no painting on the TR 12 test rod, but there is about 1-1/2" of the TR 13 test rod that needed to be painted so that rod had to be installed earlier today for Saturday's scheduled painting. After 1515, tools are put away and the shift ends at 1530.

Also today, VGO installs the eDAQ in the toolbox near the test rig. This is the datalogger to which the wire runs from the test rigs will go. Then VGO checks the signal from the wire ends at TR's 12 & 13 to ensure that there are no problems with the wires in between the ends and the data logger. Note that these are the old wires that were used for TR's 10 & 11 before those test rigs were modified to make TR's 12 & 13. All

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the wires at TR's 12 & 13 are ok.

A generator – Whisperwatt 7000 – ABF ID 002343 is used part of the day. Another generator – Whisperwatt 7000 – ABF ID 002341 is on idle/standby at the work area and is not used today. An oxyacetylene torch is on idle/standby at the work area and is not used today. A compressor – IR P185R ABF ID 002078 is on idle/standby at the work area for most of the day and is only used briefly. A welding machine – Lincoln Electric Vantage 500 ABF ID 000073 is removed from the CCO 314 site this morning approximately 0830. A small forklift – Hyster 80 ABF ID 002306 – is used for part of the day. An extendable forklift is used for most of the day.

Note that there is k-rail at this work area. Some of the k-rail is rented and addressed by the rental agreement. Some of the k-rail is ABF's k-rail used on site and paid as rented from ABF on a daily basis. To elevate the k-rail, crane mats and timber blocking (12x12's) are in use. The k-rail quantities are as follows:

10' bought k-rail = 20 pieces

10' ABF k-rail = 4 pieces

20' rented k-rail = 16 pieces

20' ABF k-rail = 19 pieces

Note that this includes three 20' ABF k-rail between the CCO 314 work area and FW Spencer's yard, with that k-rail being in place prior to the CCO work and not related to CCO 314.

The agreed extra work with ABF is as follows:

Engineer Kelvin Chen - 7 hrs

Ironworker Jared Garrett - 8 hrs

Operator John Sabatino - 8 hrs

Radios (2 radios) - 16 hrs

Extendable forklift - 6 hrs

Hyster 80 forklift - 2 hrs

110 kW Generator - 4 hrs

185 CFM Compressor - 1 hr

k-rail: 16 pcs @20' and 4 pcs @10'

Crane Mats (12x12 - 5'x16') - 4 pcs

Crane Mats (12x12 - 5'x7') - 2 pcs

Crane Mats (12x12 - 5'x8') - 11 pcs

See the attached Extra Work Order - Signed with ABF for CCO 314 work

### WAREHOUSE ROLLUP DOOR – POTENTIAL CCO 96:

For a portion of today, ABF ironworkers CJ Biskner (foreman) and Kyle Crowley are in the warehouse working on the large rollup door that was damaged several months ago. The door had been stuck in the up position and no longer functions. They continued yesterday's work on the door today. They are using a scissor lift and hand tools. The door is on the south side of the warehouse at Bay 28.